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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,537

01/23/2004

John Shigaura

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04/02/2008

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APPLIED BIOSYSTEMS
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EXAMINER

EBRAHIMI DEHKORDY, SAIED

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/763,537

Applicant(s)

SHIGEURA ET AL.

Examiner

SAEID EBRAHIMI DEHKORDY

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/23/04 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Mitani et al (U.S. patent 5,628,629)

Regarding claim 1, 8 Mitani et al disclose: A device for thermally cycling a sample, comprising: at least one heating element (note abstract, also note column 1, lines 8-17) a disc configured to receive samples (note column 10 line 59 to column 11, line 4) and a mechanism configured to rotate the disc (note column 45-60) wherein rotation of the disc induces a turbulent airflow between at least a portion of the disc and at least a portion of the heating element (note column 9, lines 42-56, also note column 15, lines 32-50).

Regarding claim 2 Mitani et al disclose: The device according to claim 1, wherein the turbulent airflow is induced by a turbulence inducing area on the disc (note column 15, lines 33-49).

Regarding claim 3 Mitani et al disclose: The device according to claim 2, wherein the turbulence inducing area includes at least one of slots, pegs, vanes, staggered vanes, and projections (note column 9, lines 52-56).

Regarding claim 4 Mitani et al disclose: The device according to claim 1, wherein the turbulent airflow is induced by a turbulence inducing area on the heating element (note column 9, lines 43-50).

Regarding claim 5 Mitani et al disclose: The device according to claim 4, wherein the turbulence inducing area includes at least one of slots, pegs, vanes, staggered vanes, and projections (note column 9, lines 52-56).

Regarding claim 6 Mitani et al disclose: The device according to claim 1, further comprising excitation optics and detection optics to detect fluorescent light emitted by at least one label in the sample (note Fig.30. column 5, lines 56 to column 6, line 9).

Regarding claim 7 Mitani et al disclose: The device according to claim 1, further comprising a feedback system to control the heating element and provide for substantially uniform heat distribution to at least one sample chamber located on the disc (note column 12, lines 45-64).

Regarding claim 9-10 Mitani et al disclose: A device for thermally cycling a sample, comprising: at least one heating element (note abstract, also note column 1, lines 8-17) a first mechanism configured to receive a disc wherein the disc is configured to receive samples (note Abstract, lines 2-10) an air gap between the disc and the heating element when the disc is included in the first mechanism (note column 10, line 59 to column 11, line 22) and a second mechanism configured to rotate the disc (note abstract, lines 2-10) wherein rotation of the disc induces a turbulent airflow within the air gap (note column 9, lines 4-55).

Regarding claim 11 Mitani et al disclose: The disc of claim 10, wherein the turbulence inducing area includes at least one of slots, pegs, vanes, staggered vanes, and projections (note column 9, lines 52-56).

Regarding claim 12 Mitani et al disclose: The disc of claim 10, wherein at least a portion of the samples are routed into the sample chambers by the influence of a centrifugal force (note column 10, lines 39-58).

Regarding claim 13 Mitani et al disclose: A method of thermally cycling, comprising: at least one of introducing and removing heat with a heating element (note column 15, lines 32-49). and rotating a disc to induce a turbulent airflow (note column 9, lines 4-55) wherein the disc is configured to receive samples (note column 10 line 59 to column 11, line 4) and wherein there is an air gap between the disc and the heating element (note column 10, line 59 to column 11, line 22, also note column 9, lines 4-55).

Regarding claim 14 Mitani et al disclose: The method of thermally cycling according to claim 13, further comprising providing substantial thermal uniformity to at least one sample chamber located on the disc (note column 8, lines 65 to column 9, lines 33).

Regarding claim 15 Mitani et al disclose: The method of thermally cycling according to claim 13, further comprising exciting a label in at least one sample chamber located on the disc (note column 3, lines 35-48).

Regarding claim 16 Mitani et al disclose: The method of thermally cycling according to claim 15, further comprising detecting light from the label (note column 4, lines 49-65).

Regarding claim 17 Mitani et al disclose: The method of thermally cycling according to claim 13, further comprising positioning the disc in a device for thermal cycling (note column 2, line 66 to column 3, lines 7).

Regarding claim 18 Mitani et al disclose: The method of thermally cycling according to claim 17, wherein positioning the disc comprises providing access to the interior of the device for thermal cycling (note column 15, lines 32-49 and column 16, line 55 to column 17, line 3).

Regarding claim 19 Mitani et al disclose: The method of thermally cycling according to claim 18, providing access comprises lifting a lid (note column 18, lines 53-59).

Allowable Subject Matter

3. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeid Ebrahimi-dehKordy whose telephone number is 571-272-7462. The examiner can normally be reached on Mon-Fri, 8:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Saeid Ebrahimi-dehKordy/
Primary Examiner, Art Unit 2625
March 27, 2008